Applicant: James S. Norris et al. Attorney's Docket No.: 14017-004002 / PSU 96-1566

Serial No.: 10/082,973

Filed: February 26, 2002

Page : 3 of 9

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-38. (Cancelled).

- 39. (Currently amended) A recombinant nucleic acid comprising a nucleotide sequence encoding an autocatalytically cleaving ribozyme and a trans-acting ribozyme, wherein said nucleotide sequence is operably linked to a tissue specific promoter, wherein said autocatalytically cleaving ribozyme comprises a first arm of complementary sequence and a second arm of complementary sequence, wherein the cleavage site of said autocatalytically cleaving ribozyme is located between said first and second arms, and wherein the number of nucleotides in one of said first arm and said second arm is about 20 nucleotides SEQ ID NO:53 or SEQ ID NO:54.
- 40. (Previously presented) The recombinant nucleic acid of claim 39, wherein said nucleotide sequence encodes an RNA molecule having the structure of a pChop cassette as set forth in Figure 3 or Figure 4.
- 41. (Previously presented) The recombinant nucleic acid of claim 39, wherein said nucleotide sequence encodes an RNA molecule having the structure of a pSnip cassette as set forth in Figure 4.
- 42. (Previously presented) The recombinant nucleic acid of claim 39, wherein said recombinant nucleic acid comprises an origin of replication.

Applicant: James S. Norris et al. Attorney's Docket No.: 14017-004002 / PSU 96-1566

Serial No.: 10/082,973 Filed: February 26, 2002

Page : 4 of 9

43. (Previously presented) The recombinant nucleic acid of claim 39, wherein said recombinant nucleic acid encodes more than one trans-acting ribozyme.

- 44. (Previously presented) The recombinant nucleic acid of claim 43, wherein the transacting ribozymes are targeted to different sites on the same target-RNA.
- 45. (Previously presented) The recombinant nucleic acid of claim 43, wherein the transacting ribozymes are targeted to different target-RNAs.
- 46. (Previously presented) The recombinant nucleic acid of claim 39, wherein said recombinant nucleic acid encodes more than one ribozyme cassette.
- 47. (Previously presented) The recombinant nucleic acid of claim 39, wherein said recombinant nucleic acid encodes at least two different ribozymes cassettes.
- 48. (Previously presented) The recombinant nucleic acid of claim 39, wherein said recombinant nucleic acid encodes more than one copy of a ribozyme cassette.
- 49. (Previously presented) The recombinant nucleic acid of claim 39, wherein said transacting ribozyme is targeted to a transcript selected from the group consisting of: pol II, HBV, pol III, RB, IGF1, SH, pol I, HPV, C3, C9, B2, Tel, TGFβ, CAT, PpaRα, p4501E1, AR, and SF1 transcripts.
- 50. (Previously presented) The recombinant nucleic acid of claim 39, wherein said nucleotide sequence encodes a hairpin loop.

Applicant: James S. Norris et al. Attorney's Docket No.: 14017-004002 / PSU 96-1566

Serial No.: 10/082,973

Filed: February 26, 2002

Page : 5 of 9

51. (Previously presented) The recombinant nucleic acid of claim 39, wherein said nucleotide sequence encodes multiple ribozyme cassettes linked together by at least 4 nucleotides.

- 52. (Currently amended) The recombinant nucleic acid of claim 39, wherein said <u>nucleic</u> acid further comprises a tissue-specific promoter is <u>selected from the group consisting of</u> a K4 promoter, K7 promoter, K13 promoter or <u>and</u> albumin promoter.
- 53. (Currently amended) An isolated cell containing a recombinant nucleic acid comprising a nucleotide sequence encoding an autocatalytically cleaving ribozyme and a trans-acting ribozyme, wherein said nucleotide sequence is operably linked to a tissue-specific promoter, wherein said autocatalytically cleaving ribozyme comprises a first arm of complementary sequence and a second arm of complementary sequence, wherein the cleavage site of said autocatalytically cleaving ribozyme is located between said first and second arms, and wherein the number of nucleotides in one of said first arm and said second-arm is about 20 nucleotides SEQ ID NO:53 or SEQ ID NO:54.
- 54. (Currently amended) A virion comprising a recombinant nucleic acid comprising a nucleotide sequence encoding an autocatalytically cleaving ribozyme and a trans-acting ribozyme, wherein said nucleotide sequence is operably linked to a tissue specific promoter, wherein said autocatalytically cleaving ribozyme comprises a first arm of complementary sequence and a second arm of complementary sequence, wherein the cleavage site of said autocatalytically cleaving ribozyme is located between said first and second arms, and wherein the number of nucleotides in one of said first arm and said second arm is about 20 nucleotides SEQ ID NO:53 or SEQ ID NO:54.
- 55. (Currently amended) A liposome composition comprising a recombinant nucleic acid comprising a nucleotide sequence encoding an autocatalytically cleaving ribozyme and a trans-

Applicant: James S. Norris et al. Attorney's Docket No.: 14017-004002 / PSU 96-1566

Serial No.: 10/082,973

Filed : February 26, 2002 Page : 6 of 9

acting ribozyme, wherein-said nucleotide sequence is operably linked to a tissue-specific promoter, wherein said autocatalytically cleaving ribozyme comprises a first arm of complementary sequence and a second arm of complementary sequence, wherein the cleavage site of said autocatalytically cleaving ribozyme is located between said first and second arms, and wherein the number of nucleotides in one of said first arm and said second arm is about 20 nucleotides SEQ ID NO:53 or SEQ ID NO:54.